

Suffering, Education and Health

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Abstract

The global concern of this paper is to study the impact of (auto) education that suffering can bring, making an observationally harmful disturbance one opportunity to better biopsychosocial and spiritual development and equilibrium of individuals and communities. In this sense, we will emphasize concepts (eg: pain, suffering, pathogenesis, salutogenesis), justifying them epistemologically, and explaining (dis)continuities between pain, total pain and suffering. We will mention the formal training of health professionals with regard to suffering and stress the importance of training of non-formal health educators in relation to suffering. We will address some of the meanings that human suffering has, and as regards the salutogenic perspective, we will discuss in particular the concepts of Aaron Antonovsky.

Introduction

The paper demonstrates, on the one hand, the limits of biomedicine in understanding and caring for suffering and, on the other, it offers a theoretical frame in which suffering is presented as a positive source of learning. We begin with the epistemological conceptions of self-organization that undergird the argument of the paper (von Foerster, 1984, Maturana and Varela, 1980, Atlan, 1979, Kaufman, 1993). This interdisciplinary group of scientists has consistently criticized biomedical views in which living beings (humans beings, too) become mere processers of information from the external world. The attempt to explain human phenomena, including suffering, in terms of linear causality is rejected by proponents of self-organization.

In its place, as is also recognised in biosemiotics (e.g. Hoffmeyer, 2008), we need a recursive and teleological causality.

Antonovsky (1988) and Cassell (2004) also have a central role in this endeavour. The first coined the term *salutogenesis* to describe the positive aspect of suffering and the second is an acknowledged authority on such experiences (Cassell, 2004). Use is also made of the thinking of Rorty (1989) and MacIntyre (1999) and, more specifically, the latter's understanding of human life as rooted deeply in community. If we are to comprehend human suffering, we must acknowledge the biological dimension of community life. In this, biologists such as Hoffmeyer and Maturana have been effective in explaining how the community can have a role in constituting a biological dimension and conversely, how biology contributes to community life.

Suffering is often identified with pain, even though the terms, in any strict sense, identify different realities. While pain always has a felt physiological dimension, this does not apply to suffering. Accordingly, we use continuity and discontinuity between pain and suffering to develop our understanding of life

experiences in ways that can be used in training insightful and compassionate health care workers.

In considering pain and suffering, we reflect on epistemological beliefs that shape the clinical practices of health care workers. Indeed, this is necessary if we are to understand the omission of human suffering in the training of many professionals. Accordingly, we stress the role of the pathogenic in how human suffering is viewed in healthcare. In agreement with, among others, Altan (1979) and Hoffmeyer (2009) we trace this to Cartesian dualistic mentalism and the 'santification' of Darwin's thought in contemporary biology. In contrast to those who see suffering as pathogenic, we argue that suffering can be a source of significant learning for both a person who suffers and those who undertake caring. We therefore argue that it is necessary to educate for health and not only for illness. Adopting a holistic paradigm, we use Aaron Antonovsky's salutogenic model to frame positive aspects of human suffering. This, we stress, is consistent with the holistic epistemology of biosemiosis and a "common platform supporting our need for treating human persons as individual wholes" (Hoffmeyer, 2008). Having presented, key concepts of this model, we place a salutogenic education in different contexts (with/without biochemical causes). Finally, inspired by Cassell (2004), we propose strategies for tertiary prevention of suffering through individual learning.

1. Pain

In clinical practice, *pain* is most often identified, more or less consciously, with a signal of damage to body tissues. Pain is regarded as a manifestation of physiological changes which can usually be diagnosed by the use of technical approaches. On this view, pain involves physiological abnormality in the structure of an organ or in tissues. For this reason many health professionals' conclude that any real pain can be diagnosed at a physiological level. Where this proves impossible, those who complain of pains are said to be mistaken ('there is nothing wrong with you...') or to be suffering from 'psychological factors'.

Such diagnosis reveals a widely held belief in contemporary health care. At times, we speak as if the psychological did not really exist: it is 'just' mental and, in other terms, the mind lacks any physiological basis. We speak as if the living mind were not immersed in a body: this view assumes a mind-body divide whose cultural roots, of course, can be traced back to Ancient Greece. Nevertheless, contemporary research shows that "just as brains serve bodies, structures deriving evolutionary and developmental events can transform (and be transformed by) body-world activity. Cognition is distributed between neural structures, cultural processes, and how a body adapts to circumstances. Supporting this view, [...] neural imaging shows the brain to rely on simultaneous activity in many areas. Many international institutions are aware of problems caused by such beliefs about pain. In seeking to overcome them,

the *International Association for the Study of Pain*, has redefined pain as “an experience associated with actual or potential tissue damage, or described in terms of such damage” (EFIC, in Definitions). In this definition, it is acknowledged that pain is a personal experience with a deeply subjective dimension. From this it follows that there is a need to include the emotional experience of pain. Once this is done, one can bring a subjective experience to the fore in a way that is generally not done in the biomedical world. Second, the definition links to clinical practice as described above. Recognition of the *potential* tissue damage marks the definition out while begging an important question. What is potential tissue damage?

If it is mere potential, we cannot know what it is before it happens. Further, when it occurs, it becomes actual damage. Inclusion of “potential” in the definition seems to safeguard the felt reality of human pain. It is, however, impossible to detect potential tissue damage. In our view, this humble attitude is worthy of praise. Instead of blaming the victim, the definition raises the possibility of an as yet undiscovered cause of patient complaints.

The definition is based on a paradigm of linear biochemical mechanics. This raises the issue of what happens if no tissue damage is found? Either the person is lying, or they *are* feeling. However, if the cause is unidentified, is it not wiser to admit our ignorance than to use a definition that questions this perception? Indeed, to label pain as ‘psychological’, ‘psychosomatic’ (or with related expressions) is equivalent to dismissing it as unreal. Where health professionals have this type of attitude they can provoke suffering by making patients feel helpless, angry, and misunderstood. In some cases, indeed, they may even begin to wonder about their own mental sanity!

“It is difficult to describe the effect of being told you are not really ill when you are. The disjuncture between private experience and public image is so severe, you can easily become obsessed with establishing the truth. [...]

As certainly as a kind of epiphany is achieved with naming, a shock of recognition can be physically felt, so also an equally intense and negative shock is experienced with misnaming. It is a sinking feeling, something like missing a train for a journey that is not at all casual. You are left hanging. Disoriented. Strangely lonely. [...] You will be followed into your privacy by phantoms of rejection and even ridicule for what your body continues to know.” (Griffin, in Munson, 2000, 32).

Within the same paradigm, we find related prejudice in describing physiological symptoms as ‘stress’. This is because most health professionals lack academic training about what does (and does not) count as stress (Evans and Finlay, 2001). They may evoke ‘stress’ largely because of difficulty in admitting that the origin of the problem is unknown. (On a linear model, there must always be a single cause). Of course, people with signs of physiological pain are often under great stress; however, this may be more an effect than a cause. Often, the roots of pain/suffering are neither discovered nor

hypothesized; rather, an afflicted person is given a diagnosis that depends on an empty word (Groopman, 2007).

Whatever the, often multiple, causes of painful phenomena, they are lived by a body. Further, in any organic metabolism, nervous, endocrine and the immunological systems (at least peripheral ones) are crucial to experience. The central nervous system is more strongly linked to what we consider as observational psychosocial factors. This is true regardless of whether we are dealing with a single body, the healing of a cut, or in a nightmare during sleep. As yet, we do not know how to describe these processes, but reduction to absurdity shows disrespect to those seeking relief for pain. Indeed, it must never be forgotten that such processes remain the main reason for seeking care from health professionals (IASP, 2010).

“The autonomous nervous system that governs central components of the body’s internal life is of course an important tool for these operations. But it has become increasingly clear that both the endocrine and the immunological system are involved in the semiotic activity by which the psychological situation of the organism feeds back into its somatic readiness potential. These connections are the theme for a new field of research in medical science that has developed strongly through the last few decades under the name of psychoneuroimmunology (PNI)— which, in spite of the name, also includes the endocrinological system as part of its subject matter.” (Hoffmeyer, 2008, 13).

2. Suffering

Different cultures have different concepts of suffering. And thus different modes of understanding. In Buddhist cultures, for example, suffering and its function are seen as more closely integrated than in the West. In history, we too have had many ways of appreciating and feeling suffering. Even if we addressed a historical period like the current one, we can find a range of views. I choose Eric Cassell’s (2004) definition because it is widely used and permits elucidation of experiences of suffering that are sometimes undervalued.

For Cassell, suffering is “a state of severe distress associated with events that threaten the integrity (intactness) of a person. [...] Suffering requires consciousness of the self, involves the emotions, has effects on the person’s social relationships, and has an impact on the body.” (Cassell, 2004, 32 and 224). Though not strictly related to this topic, this definition suggests that many animals experience, not suffering, but only emotions and pain. This is in parallel with Portuguese scientist A. Damasio’s distinction between feeling emotions and sentiments; he argues that the latter demands activity in brains that have a developed neo-cortex or, in a word, consciousness.

In his view, we must not identify consciousness with an independent *substantia* as did Descartes. Rather, it depends on wisdom based in organic homeostasis

(Varela, 1989; Hoffmeyer, 2008) and a neo-cortex like that of *Homo Sapiens Sapiens* (Damasio 1999, Varela, Thompson and Rosch, 1991). Damasio shows that it is possible to identify relevant *somatic* markers (Damasio, 1994).

"When the bad outcome connected with a given response option comes into mind, however fleetingly, you experience an unpleasant gut feeling. Because the feeling is about the body, I gave the phenomenon the technical term *somatic* state ('soma' is Greek for body); and because it 'marks' an image, I called it a *marker*. Note that I use *somatic* in the most general sense (that which pertains to the body) and I include both visceral and nonvisceral sensation when I refer to somatic markers." (Damasio, 1994, 173).

Serious distress occurs in what people identify as an inner dimension, and is often associated with emotions like anxiety, and feelings of sadness, frustration, impotence, etc. The fact that it is an inner experience makes it less easily detectable by an observer, especially if this person lacks detailed information about the person who is suffering.

"For an observer an entity is an entity when he can describe it. To describe is to enumerate the actual or potential interactions and relations of the described entity. Accordingly, the observer can describe an entity only if there is at least one other entity from which he can distinguish it and with which he can observe it to interact or relate. This second entity that serves as a reference for the description can be any entity, but the ultimate reference for any description is the observer himself." (Maturana and Varela, 1980: 8)

Some people, of course, do not wish to see suffering in others even when it is expressed in a manifest and obvious way. This kind of disregard is both a humiliation of the other and a way of escaping from something that one does not wish to face. This may be either because the other's suffering might make one feel responsible, or it may be because it reminds one of one's own inner distress which is being carried from meeting to meeting, perhaps even carried across medicated sleep. At other times, people avoid recognizing the suffering of others by using it as an emotional weapon such that their discomfort becomes a flag of victimization that induces guilt.

The state of severe distress is said to occur on the "inside" and, as a result, emphasis falls on the subjective dimension of suffering. The skin thus symbolizes, at the same time, both the wall that separates us from the world and the boundary through which we connect with others. It gives us consciousness of a rich and complex world in the body that is not determined by the 'environment' but which, nonetheless, has a syntax and a grammar (or several of these) shared with the other members of the species while also making us unique: As Hoffmeyer (2008) suggests, it might be valuable to try seeing the world from *the skin's perspective*. People often consider that there might be damage to internal organs such as the heart, stomach or liver. This may, for example, lead to complaints about tightening or 'inner' distress. However, even if 'auxiliary' diagnostic tests fail to identify evidence, health

professionals should be wary of concluding that distress is a 'psychological' problem. The causal *locus* of immense internal distress can give rise to external symptoms associated with the malady, be it relational or physical. Indeed, even in the case of physiological diseases, we blame our misery on a virus or a *bacterium*. While the illness arises without direct connection with contamination, we explain its origin as something that is not ours. We may say, for example, 'I've got cancer'. Such ways of describing suffering pivot, as Hoffmeyer (2008) notes, on a difference between *soma* and *sema*. People use this vocabulary to describe what they feel because they are immersed in a society where the body's *phenomena* are treated as meaningless. All too often we speak as if meaning comes from 'outside', or 'out there'. Accordingly, people attribute the cause of suffering to something 'external'. They really believe that distress has an external cause.

In fact each body has its own way of producing meanings; these arise from the interpenetration of body and environment. The way people describe the dissolution of a body reflects on something bad that affects a human being as bodily markers influence vital organs (e.g. heart, liver, viscera). It is not enough to sense; organisms must also create functional interpretations of the myriad of sensory stimulations so that they do not become isolated incoming impulses but are integrated into a form that the body understands and can act upon appropriately (Hoffmeyer, 2008). If only health professionals were better at listening to the description of bodily signals they could offer more help. However, it is all too often thought that patient complaints can, in principle, be traced to a single disease; often it is forgotten that illness strikes people – as opposed to just bodies, organs or cells. If this type of statement seems trivial, we should ask why research privileges the molecular level. Let's face it: when we excise an organ (the stomach, for example) that is occupied by malignant cells, does the disease remain outside the person? Is that organ fully neo-plastic while belonging to a living organism? If it is removed from the organic context in which it lived? Can it still be regarded as carrying an illness?

No-one thinks that this is so. We all recognize that an organ can have a negative effect only when incorporated in a body; further, it is acknowledged that this incorporation connects the body *via* the bloodstream, the neural metabolism and so on. Thus, even if one considers only the physiological dimension, it is rarely the case that organic malfunction can be traced to an organ, cell or group of molecules. When one considers all the dimensions of a human being, things are even more complex. While we may say that the cause of suffering is external, we must neither confuse this with the effect (pain), nor seek to explain this by a single cause.

Much of a patient's suffering depends on nonphysiological factors. A person diagnosed with a disease feels fragile, or thinks s/he should feel fragile; s/he identifies physiological limitations, often described by health professionals. This situation affects how one feeds, how one moves, how one interacts with

oneself and others. Less positive moods often occur in sick people and those with chronic diseases. As a result, especially when not taken seriously or well supported they are likely to fall into depression. In addition, community concerns can cause distress. A patient's long or short term stay in hospital may be lived as causing difficulties for their families, professional lives and those who depend on them. Regardless of their age group, problems experienced or perceived impact on how they fulfill their social functions. As a consequence of being sick, we face all manner of questions concerning the meaning of life and death, what we are doing here, and how we affect others. Are we in transit to another dimension of life or is this the last step in what preceded (Azevedo and Louro, 2006)? There is no way that such factors can be subtracted from a sick person's distress. Further, it is immediately clear that these factors do not fall into neat categories. Nevertheless, they resonate through the lives of the sufferers: dismay and impotence can thus be traced to a multiplicity of concerns, sorrows, pain, helplessness, and frustrations. This can shape a sense of internal disintegration accompanied by visceral sensations, especially at the center of the body.

Suffering is often described as 'consuming' or by similar metaphors. This may manifest itself as a crisis of physical identity or, in other cases, by sharp and sudden weight loss. Indeed, suffering may correspond to giving up the struggle in regard to a person who ceases to recognize her (or his) self. This 'self' exists only in so far as it directs an intentionality toward the outside—

an aboutness, as it is called. However, as Hoffmeyer (2008) notes, "this outward reference rests upon a corresponding inward reference [...]" (p.6).

Human lives can be run through with suffering that bears no connection to any physiological disease. It can be underpinned by social factors that include mourning, helplessness, abandonment, torture (emotional, for example), unemployment, betrayal, isolation, living without shelter, memory loss, and fear. It arises, moreover, in situations like being in love with someone who rejects us. Since suffering is subjective, people can live in distress without causing distress in others. For anyone who plays the role of caregiver, it is important to ask the person for whom they care about both their feelings and the context of the suffering. As caregivers, there is a need to create empathy for that persons' crisis of identity. Indeed, the specificity of subjective human suffering shown by the fact that it can occur on any scale precisely because it relates to the whole person. In claiming that the one who suffers is a person, not a body (or cell bodies), we must be careful not to identify this with a mind. While we live in a time that is fascinated by capacities and their functions, these are all too often traced to a micro world.

Many cognitive scientists dream of mechanisms that unlock the mind; they hope to find the causal basis of human activity. This modern mechanistic view that makes us forget that mind (whatever that it is) works in a brain that

inhabits a body. However, a human body with a brilliant mind and a key-organ that Works poorly (e.g. a heart or liver) is severely threatened.

3. Chronic suffering

Relief of suffering is often less demanding than healing. Thus, one important means of gaining relief is the analgesia provided by visiting a doctor (or pharmacy).

However, in chronic diseases, the opposite applies as those afflicted feel that their identity is deeply intertwined to the lives of others. Often their suffering is worsened by a sense of being a burden on caregivers. It is mingled with guilt and the fear of being abandoned. This is, of course, bound up with the impatience they see in the looks and gestures of caregivers. Frequently, they come to think that the caregiver is acting out of obligation rather than love. This overload of feelings splits their identity and reveals the heart of human suffering. Such circumstances lead to increased relational difficulties, as in, for example, the sexual lives of chronically ill. This applies to their pains, physical impairments, respiratory and vascular insufficiencies and much besides. In women, suffering is easily accentuated because of their complex sexuality (Oliveira,2006b).

Where people value high self-esteem and the envy of others, those who feel diminished by physical, emotional and spiritual suffering feel weighed down even with respect to transcendent realities in which they believe.

Many people live a *double bind* (Bateson, 1972;Neuman, 2004), ranging from feeling wronged to being unlike others. For such reasons aging has become a source of suffering: the wisdom that age may bring has largely been replaced by lack of vitality, productivity, standardized beauty. However, one type of person, occasionally seen as chronically ill, suffer more than others. Often the 'disabled' suffer painlessly from inner disintegration and loss of humanity.

Health education that recognizes suffering should prioritise such people. Their carers are privileged sources of knowledge about personal dramas. Alongside the disabled, another "risk group" are those with physical deformities, scars, with uncontrollable tics and grimaces and mutilations. Additionally, we find obese people and others with eating disorders. In the name of 'quality of life' we discriminate against such people, even when problems are due to factors such as hormonal problems.

4. For a salutogenic integration of pain and suffering in human life

Epistemological holism (Rorty, 1989) long ago articulated the view that there are two aspects to a living organism, making the whole greater than the sum of its parts. The person is not simply the sum of organs, or even its dimensions because parts such as the components of organs are vital to the constitution of the whole (Oliveira, 2000). In exploring bodily parts, the pathogen paradigm shows its value. This is achieved by investigating how physical structures and

the laws of mechanical apply to human beings. On this approach, as suggested above, suffering tends to reduce to pain. In other traditions such as those of the Orient, new suggestive insights are brought to the same biological processes. These alternative readings encourage a *salutogenic paradigm* where attention falls on tertiary prevention.

The salutogenic vision aims at understanding the processes that enable people, living in situations with a poor quality of life, to have remarkable health. These situations show that organisms have general resources of, not just resilience, but resistance. Bodies resist diseases by altering internal factors that are generally considered harmful into a source of organic complexity.

In this context, it is important to understand: 1) how a person maintains equilibrium across dimensions of her life in situations that cause severe distress and/or pain; 2) how some people turn suffering into complex learning and give it richer meaning, or how disorder allows for higher order sense-making; and 3) how to educate others (and one's self) to transform "noise" into order (von Foerster, 1984; Atlan, 1979).

Aaron Antonovsky's salutogenic research builds on the idea that there is complexity in noise in a study of women who had lived in subhuman conditions such as those who survived concentration camps thirty years before Antonovsky's interviews. Despite the unspeakable suffering that they had endured, most considered themselves happy and this was reflected in their physiology. Indeed, they had fewer diagnosed diseases (gynaecological, in particular) in comparison with women who did not go through so many difficulties (Antonovsky, 1988). It was therefore concluded that health is not only absence of disease and that these women had learned how, in dealing with adverse situations, to produce health or equilibrium across human dimensions, according to Alma Ata Conference (Oliveira, 2004).

Now, learning processes are different from normal mechanical processes in that they depend on the formation of some form of a coded *representation* [...]. But the moment a representation becomes a constituent of a mechanism, "misunderstandings" will necessarily lurk in the background. An unpredictable source of change is thereby introduced into the system, and change in systems with a capacity for learning is therefore historical in nature, not mechanical. (Hoffmeyer, 2009, 930)

Antonovsky's research shows that health links external factors with a particular subject's ability to solve problems and build solutions to the experience of suffering. This results from use of natural, environmental, physical and biochemical, emotional, interpersonal, socio-cultural, and spiritual modes of resistance.

These generalized resistance resources (GRR) can be classified as giving rise to a sense of comprehensibility, a sense of manageability and a sense of meaningfulness.

"Comprehensibility [...] refers to the extent to which one perceives the stimuli that confront one, deriving from the internal and external environments, as making cognitive sense [...]. The person high on the sense of comprehensibility expects that stimuli he or she will encounter, then they do come as surprises, that they will be orderable or explicable. [...] *Manageability* is the extent to one perceives that resources are at one's disposal which are adequate to meet the demands posed by the stimuli that bombard one. [...] To the extent one has a high sense of manageability one will not feel victimized by events or feel that life treats one unfairly. Outward things do happen in life, but when they occur, one will be able to cope and not to grieve endlessly. [...] The meaningfulness component of the SOC refers to the extent to which one feels that life makes sense emotionally, that at least some of the problems and demands posed by living are worth investing energy in, are worthy of commitment and engagement, are challenges that are 'welcome' rather than burdens that one would much rather do without. [...] When unhappy experiences are imposed [...] he or she will willingly take up the challenge, will be determined to seek meaning in it, and will do his or her best to overcome it with dignity." (Antonovsky, 1988, 17-19)

These resources are realized as our genetic propensity interacts with an individual's ontogenetic history. They draw on flexible and creative resources that come into play when the body's balance is in jeopardy. They can be identified in those who give a sense of internal coherence to their lives; they attribute inclusive meaning to existence and what they view as relevant events. The story they tell about themselves is seen as a meaningful way of identifying events that make them who they are today. As a result, they see themselves as unique and irreplaceable human beings. Generalized resistance resources can, in themselves, contribute to an individual, group or population's "sense of internal coherence" (SOC). While relating to each other there is variability in how efficiently each kind is used.

A sense of coherence develops over the lifetime and provides a foundation for positive correlations between perceived health, mental health and quality of life. In Deely's terms (1992), "In semiosis, a sign brings something not semiotic into the semiotic realm; it makes of a thing an object signified, a significate, leading in turn to further signifieds, many of which are often new" (Deely, 1992: 54). Antonovsky therefore argues that any health professional should aim to foster a person's sense of coherence. It may thus be necessary to place people in new situations, advise them on new relationships, activities and other associations while showing how to manage problems differently by giving meaning to their daily lives. How many biological, psychological, community, spiritual imbalances could be avoided by adopting this paradigm of health education?

It would, however, place new responsibility on health professionals. They would be required to understand the emotional ties that increase a person's

homeostatic mechanisms and, indeed, the nature of their life-in-community (viz. the degree to which integration of idiosyncrasies is possible). However, if health professionals set out to reduce human suffering (including medically diagnosed pathogenesis) they could also ease the perception of losing the sense of self. Feeling the solidarity of those we trust, love and respect, gives those who are unwell a sense of satisfaction even in the smallest of life's events.

Authors as diverse as Alasdair McIntyre (1999) and Richard Rorty (1989), stress that human solidarity can convert suffering into a source of continuous learning. Cassell (2004:58) notes that situations which cause suffering may continue and yet take on new meaning. Indeed, just such transcendence is the main source of resistance to suffering when people reinvent themselves by taking greater responsibility for the meaning of their lives. One also gains substantial relief from suffering when feeling loved by loved ones.

Conversely, sharing others' suffering makes them suffer at levels of intensity not only in proportion with the depth of the relationship, but also in terms of how meaning is attributed to the suffering. When looking for treatment from a health professional, a patient (or suffering doctor) seeks a similar kind of treatment for both him or herself and the family. If professionals are to promote a sense of coherence in their patients, or at least with suffering people who have no discernible disease, they must overcome a lack of academic preparation for this aspect of professional practice (Oliveira, 2006a).

Suffering arises both from pain and when a person's integrity is threatened or broken; it continues as long as the person does not feel whole. It arises when everyday experiences accentuate loss of meaning, sense of self and/or of others. Suffering can, however, be framed as experience that provides learning; it can give us an inner wealth that helps to build a sense of our world that restores lost or threatened integrity.

The framework of suffering can make it understandable, even tolerable, independently of the degree of pain to which one is subject. Indeed, the salutogenic strategy *par excellence* occurs where noise disturbs order. When this happens, suffering makes sense of life, giving an equilibrium that is so much more than health. Chronically ill/suffering persons can achieve this aim only when they personally chose to frame their experiences this way. But, physicians and other health professionals can recommend such strategies to patients and their families.

Self-knowledge on the part of the chronic patient

Folk wisdom says that a person is his or her own best doctor. Indeed, many chronic diseases affect patients at different degrees of intensity and in different temporal rhythms. Moreover, not only does the cause of many diseases remain unknown but the numbers suffering are continuously increasing. Much is gained from sharing knowledge of how the disease is carried.

This is shown by self-help groups (these emerged to combat the concealed chronic condition of alcoholism) who are not only familiar with general symptoms but can also give clues for recognizing more idiosyncratic patterns. This is of value in recognizing the activation/remission of a chronic disease (Oliveira, 2004). Much could be learned about such conditions from reading diaries in which patients write about their personal experience. While often used in the humanities and social sciences, this methodology can be applied to medicine in order to promote patient self-knowledge (Oliveira, 1999). These patients can also live longer periods in remission (Oliveira, 2005), if they can be trained to share their physiological symptoms both with each other and in community settings. By so doing, it is easier to understand how symptoms generate threatening situations. Approaches of this kind make two assumptions about the pedagogical training of health educators (Oliveira, 2004). First, patient education demands that they show concern for the ailing; second, the educator should increase the patient's desire to, not to deny the disease, but to cope and live with both it and the resulting suffering.

Live fully in the present

One problem of modern medicine is the belief in endless processes of recovery. Health promotion focused on 'lifestyle' persuades us (often unconsciously) that if we behave well, lack vices, feed 'properly', and exercise, we will live longer and be happy (almost) forever.

While following a healthy life style is to be recommended, things are not so simple. First, lifestyle must be adjusted to the specific individual. This, however, is all too rarely considered: after heart failure, for example, people are given standard advice: no smoking, no drinking, a lot of vegetables, walking. Some coronary patients walk 10 km daily as soon as they arrive home from hospital, fulfilling doctor's orders, and feel obviously worst. In another case, people with autoimmune problems (and sometimes without a specific diagnosis) volunteer for swine flu vaccination. Reportedly, they were allowed to go ahead and no one explained that it can be especially dangerous if their bodies have to deal with a new and untested pathogenic substance.

We adopt many symbols in our bodies (and minds).

We aim to walk at least half an hour a day, maintain an ideal weight, be slim and tall (with high heels), eat organic food, abstain from alcohol and smoking, be a pleasant colleague, splendid mother and a fantastic lover. It is, however, impossible to integrate these ideals with the everyday life of the chronically ill. This increases the conflict between accepting them as they are, and trying to be as 'everybody is, except me' (viz. 'perfect'). Thus any chronic patient is haunted by the image of healthy, slender, graceful, young, fast and efficient people – this is always visible in the gaze of others. Similar ideas also affect social representation of the chronically ill. Not only are they rarely taken seriously, but some react by taking the position of the wronged victim, claiming rights

and forgetting civil duties. By so doing, they sustain the belief that, after being diagnosed and treated, the chronically ill become items of display. To survive these kinds of chronic suffering, one must focus on the gift of living.

Like reciting a mantra, one must strive to think about the happiness of living in the universe; this requires training, self-knowledge and support of those who love us. To concentrate on the here and now requires mental endurance and, indeed, obstinacy. It is thus immensely beneficial if a doctor, nurse, or family member can encourage us to do so and help us with the challenge of living. One final group that have been deeply affected by the manipulation of symbols are young city people who show increasing levels of self-mutilation (CE, 2009: 23) and eating disorders, ways of punishing themselves for lack of success, materialized in marks, professional and beauty standards.

Develop indifference to what is happening

Abstracting from what we take to be normal and, indeed, the consequences of non-inclusion requires acceptance of disease, recognition that it is a source of learning and inward strength. It also allows us, to give up on competing with everyone, including ourselves, about the past or the future. However, to give up the fight against inward suffering and the demands of normality, does not mean that one must abandon healing. It means that we seek it by refusing to hate ourselves.

Being flexible

Fulfilling our mission in the world by living in the present and drawing on our capabilities enables us to build a meaningful life for ourselves and, perhaps, a few others. That is sufficient. It may also be that we have not figured out our mission, what we are doing here, or that we feel we are here by mistake. This sense can arise from the futility we feel in the acts we perform and how these affect those around us – especially those we love. For this reason, doctors need to join forces with families and communities in making patients feel useful regardless of their disease and age. The suffering of the chronically ill can be substantially decreased by calling on them to volunteer by giving them opportunities to lessen the distress of others – even if only through a look, a song, a smile or a gesture of solidarity.

A chronic patient can alleviate emotional distress in a person whose suffering lacks diagnosis. A paraplegic can give meaning to the lives of those who care for him or her. In constructing meaning, the chronically ill learn that when they cannot run, they walk and that this leaves time for stopping; when they have to sit or lay down, they do so. A multitude of things can be done when someone is lying down – singing, praying, hugging, and so on. Physicians and other health professionals can encourage their patients by making families and communities aware of the many opportunities that these patients have to be useful and valuable.

It is the duty of any doctor to provide patients with chronic ailments and the necessary knowledge to live as much as possible. This demands that they be supported in actions taken to improve their well-being; the same applies to listening to, evaluating, and reviewing the strategies of life that patients use to survive.

The physician can thus minimize suffering by acknowledging the idiosyncrasies of each patient in their lived therapeutic relationship. Salutogenic strategies enable chronically ill patients and chronically suffering persons to live better with the help of health educators. They work because they produce a reduction of stressful factors (stressors) and simultaneously create generalized resistance resources in each of the main dimensions. As Antonovsky (1996) stresses, the strategies create relational ties with specific individuals and communities by taking a holistic view of people that encourages the development of flexibility.

Finally, these strategies encourage the construction of consistent meanings that empower people to understand and manage their daily lives. Much research is needed into these salutogenic approaches which can be used in developing our grasp of what is meant by SOC or the *sense of internal coherence*.

References

- Antonovsky, A. (1988). *Unraveling the Mystery of Health*. London: Jossey-Bass.
- Antonovsky, A. (1996). The Salutogenic Model as a Theory to Guide Health Promotion. In *Health promotion international*. Vol. 11, 1, pp. 11-18.
- Atlan, H. (1979). *Entre le Cristal et la Fumée. Essai sur l'Organisation du Vivant*. Paris: Seuil.
- Azevedo, M. C. and M. Louro. (2006). *A Luz Viva da Morte*. Authors' edition.
- Bateson, G. (1972). *Steps to an Ecology of Mind*. New York: Ballantine Books.
- Bateson, G. (1979). *Mind and Nature: A Necessary Unity*. New York: Bantam books.
- Cassell, E. (1982). The Nature of Suffering and the Goals of Medicine. *New England Journal of Medicine* 306, pp. 639-645.
- Cassell, E. (2004). *The Nature of Suffering and the Goals of Medicine*. Oxford: Oxford University Press.
- CE (Comission Europeene) (2009). Santé et Bienêtre des Jeunes en Europe. *Le Magazine*, 32.
- Damasio, A. (1994). *Descartes' Error: Emotion, Reason and the Human Brain*. New York: Grosset-Putnam.
- Damasio, A. (1999). *The Feeling What Happens*. New York: Harcourt, Brace, and Co.
- Deely, J. (1992). Semiotics and Biosemiotics: Are Sign-Science and Life-Science Coextensive?. In T. Sebeok and J. Ulmiker-Sebeok (ed.). *Biosemiotics. The Semiotic Web 1991*. Berlin: Walter de Gruyter & Co. 45-76. EFIC – Europe

against Pain (Definitions). Retrieved from: <http://www.efic.org/declarationnonpain.html>

Evans, M.; L. Finlay (Ed.) (2001). *Medical Humanities*. London: BMJ Books.

Feyerabend, P. (1978). *Science in a Free Society*. London: New Left Books.

Groopman, J. (2007). *How Doctors Think*. New York: Houghton Mifflin Company.

Hoffmeyer, J. (2008). Semiotic Body. *Biosemiotics* 2, pp. 169-190.

Hoffmeyer; J. (2009). Biology is Immature Biosemiosis. *Semiotics 2008 Proceedings*. Ottawa: Legas Publishing.

IASP (International Association for the Study of Pain) (2010). *The Pain in Europe Report*. Retrieved from <http://www.paineurope.com>.

Kauffman, S. A. (1993). *Origins of order: Self-organization and Selection in Evolution*. New York: Oxford Press.

Macintyre, A. (1999). *Dependent Rational Animals. Why Human Beings Need the Virtues*. London: Duckworth.

Maturana, H. and Varela, F. (1972), *De Maquinas Y Seres Vivos*. San Tiago: Universidade de San Tiago del Chile.

Maturana, H. and Varela, F. (1980). *Autopoiesis and Cognition. The Realization of the Living*. Dordrecht/Holland: D. Reidel Publishing Company.

Munson, P. (Ed.) (2000). *Stricken. Voices from the Hidden Epidemic of Chronic Fatigue Syndrome*. New York: Haworth Press.

Neuman, Y. (2004). *Processes and Boundaries of the Mind: Extending the Limit Line*. New York: Kluwer Academic/Plenum.

Oliveira, C. C. (1999). *A Educação como Processo Auto-organizativo – Fundamentos Teóricos para uma Educação Permanente e Comunitária*. Lisbon: Ed. Instituto Piaget.

Oliveira, C. C. (2000). *Holismo: Aprender e Educar. Diversidade e Diferença*. Porto: Faculdade de Letras, Universidade do Porto.

Oliveira, C. C. (2004). *Auto-organização, Educação e Saúde*. Coimbra: Ariadne.

Oliveira, C. C. (2005). Síndrome de Fadiga Crónica: Aprender, Educar e Agir. *Revista Portuguesa de Psicossomática*, vol.6, 1, pp. 105-114.

Oliveira, C. C. (2006a). A Importância do Sofrimento na Educação para a Saúde. *Pessoas e Sintomas*, 1: 22-28.

Oliveira, C. C. (2006b). Uma perspectiva salutogénica das doenças crónicas. Retrieved from: <http://www.editonweb.com>

Rorty, R. (1989). *Contingência, Ironia e Solidariedade*. Lisbon: Editorial Presença.

Sebeok, T. A. and Sebeok, J. (1992) (ed.). *Biosemiotics. The Semiotic Web 1991*. Berlin: Mouton de Gruyter.

Varela, F. (1989). *Autonomie et Connaissance*. Paris: Seuil.

Varela, F., Thompson, E., Rosch, E. (1991). *The Embodied Mind*. Cambridge: MIT Press.

Von Foerster, H. (1984). *Self-Organization and Management of Social Systems – Insights, Promises, Doubts, and Questions*. New York: Springer-Verlag.

Costa Oliveira, Clara (2010). "Suffering, Education and Health". In Cowley, Stephen J.; Major, João C.; Steffensen, Sune V. & Dinis, Alfredo (Eds.), *Signifying Bodies: Biosemiosis, Interaction and Health*. Braga: Faculty of Philosophy of Braga, Portuguese Catholic University, pp. 119-143.